## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

Claim 1 (Currently Amended): A 4-methylene-1,3-dioxolane compound of the general formula (I):

$$\begin{array}{c|c}
X & CH_2 \\
\hline
 & R1
\end{array}$$
(I)

wherein R1 denotes hydrogen,  $C_5$ - $C_6$ -cycloalkyl or  $C_1$ - $C_4$ -alkyl; m and n, which may be the same or different, denote 0 or 1, wherein m  $\leq$  n, o denotes 2, 3 or 4 depending on the valency of the group X; and X denotes a C-C-single bond, straight-chain when said m denotes 1, or branched  $C_1$ - $C_{18}$ -alkylene,  $C_5$ - $C_6$ -cycloalkylene,  $C_8$ - $C_{18}$ -arylalkylene, - $CH_2(OCH_2CH_2)_pOCH_2$ -, - $CH_2(OCH(CH_3)CH_2)_pOCH_2$ -, wherein p is an integer from 0 to 100, or a group selected from

(ii) 
$$(R2)^{\frac{1}{q}} \frac{1}{[1]} (\xi - )_{0}$$

(iii) 
$$(R2)_{\Gamma}$$
  $(\frac{1}{2})_{\Gamma}$ 

(iv) 
$$(\xi^{-})_{0}$$

$$(v) \qquad \qquad \boxed{ \qquad \qquad } \frac{A}{|I|} \qquad \qquad \Big( \xi - \Big)_{0}$$

wherein  $q \le (6-0)$ ,  $r \le (8-0)$ , R2 denotes H or a  $C_1$ - $C_4$ -alkyl group and A denotes a single bond or

denotes  $-C(CH_3)_2$ -,  $-C(CF_3)_2$ -,  $-CH_2$ -,  $-SO_2$ - or -(C=O)-, and wherein the 2-position of the 1,3-dioxolane ring is not linked directly to an aromatic group.

Claim 2 (Currently amended): The A 4-methylene-1,3-dioxolane compound according to claim 1, selected from the group consisting of:

- 1,3-Bis-(4-methylene-1,3-dioxolane-2-yl)propane,
- 1,2-bis-(2-methyl-4-methylene-1,3-dioxolane-2-yl)ethane,
- 2,2'-bis-[4-methylene oxyphenyl-(4-methylene-1,3-dioxolane-2-yl)]propane,

bis-(4-methylene-1,3-dioxolane-2-yl)methane,

- 1,5-bis-(4-methylene-1,3-dioxolane-2-yl)pentane,
- 1,6-bis-(4-methylene-1,3-dioxolane-2-yl)hexane,

bis-(4-methylene-1,3-dioxolane-2-yl)methylether,

1,3-bis-[(4-methylene-1,3-dioxolane-2-yl)methylene oxy]propane,

tetrakis-[(4-methylene-1,3-dioxolane-2-yl)methylene oxy]neopentane,

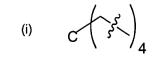
- 1,4-bis-(4-methylene-1,3-dioxolane-2-yl)cyclohexane,
- 1,2-bis-[(4-methylene-1,3-dioxolane-2-yl)methylene oxy]ethane,
- 2,2'-bis-[(4-methylene-1,3-dioxolane-2-yl)methylene oxy]ethylether,
- 1,4-bis-[(4-methylene-1,3-dioxolane-2-yl)ethenyl]benzene,
- 1,3-bis-[(4-methylene-1,3-dioxolane-2-yl)methylene oxy]benzene,
- 1,5-bis-[(4-methylene-1,3-dioxolane-2-yl)methylene oxy]naphthalene,

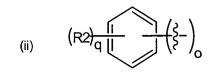
2,2-bis-[4-(4-methylene-1,3-dioxolane-2-yl)methylene oxyphenyl]propane, bis-[4-(4-methylene-1,3-dioxolane-2-yl)methylene oxyphenyl]methane, 4,4'-bis-[(4-methylene-1,3-dioxolane-2-yl)methylene oxy]biphenyl, 2,6-bis-[(4-methylene-1,3-dioxolane-2-yl)methylene oxy]anthraquinone, and 1,3,5-tris-[(4-methylene-1,3-dioxolane-2-yl)methylene oxy]benzene.

Claim 3 (Withdrawn): A 4-chloromethyl-1,3-dioxolane compound of the general formula (II):

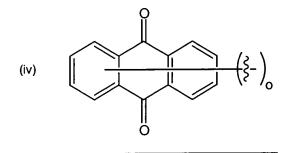
$$\begin{array}{c|c}
X & (O)_{m} (CH_{2})_{n} & CH_{2}CI \\
\hline
R_{1} & O & CH_{2}CI
\end{array}$$
(II)

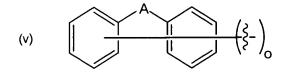
wherein R1, m, n, o and X have the same meanings as those defined for general formula (I) in claim 1, respectively denotes hydrogen,  $C_5$ - $C_6$ -cycloalkyl or  $C_1$ - $C_4$ -alkyl; m and n, which may be the same or different, denote 0 or 1, wherein  $m \le n$ , o denotes 2, 3 or 4 depending on the valency of the group X; and X denotes a C-C single bond, straight-chain, or branched  $C_1$ - $C_{18}$ -alkylene,  $C_5$ - $C_6$ -cycloalkylene,  $C_8$ - $C_{18}$ -arylalkylene, - $CH_2$ (OCH $_2$ CH $_2$ ) $_p$ OCH $_2$ -, - $CH_2$ (OCH(CH $_3$ )CH $_2$ ) $_p$ OCH $_2$ -, wherein p is an integer from 0 to 100, or a group selected from





(iii) 
$$(R2)^{\frac{1}{r}} \left(\xi - \int_{0}^{\infty}$$





wherein  $q \le (6-o)$ ,  $r \le (8-o)$ , R2 denotes H or a  $C_1$ - $C_4$ -alkyl group and A denotes a single bond or denotes  $-C(CH_3)_2$ -,  $-C(CF_3)_2$ -,  $-CH_2$ -,  $-SO_2$ - or -(C=O)-, and wherein the 2-position of the 1,3-dioxolane ring is not linked directly to an aromatic group.

Claim 4 (Withdrawn): The 4-chloromethyl-1,3-dioxolane according to claim 3, selected from the group consisting of:

- 1,3-bis-(4-chloromethyl-1,3-dioxolane-2-yl)propane,
- 1,2-bis-(2-methyl-4-chloromethyl-1,3-dioxolane-2-yl)ethane,
- 2,2'-bis-[4-methylene oxyphenyl-(4-chloromethyl-1,3-dioxolane-2-yl)]propane,

bis-(4-chloromethyl-1,3-dioxolane-2-yl)methane,

- 1,5-bis-(4-chloromethyl-1,3-dioxolane-2-yl)pentane,
- 1,6-bis-(4-chloromethyl-1,3-dioxolane-2-yl)hexane,

bis-(4-methylene-1,3-dioxolane-2-yl)methylether,

1,3-bis-[(4-chloromethyl-1,3-dioxolane-2-yl)methylene oxy]propane,

tetrakis-[(4-chloromethyl-1,3-dioxolane-2-yl)methylene oxy]neopentane,

- 1,4-bis-(4-chloromethyl-1,3-dioxolane-2-yl)cyclohexane,
- 1,2-bis-[(4-chloromethyl-1,3-dioxolane-2-yl)methylene oxy]ethane,
- 2,2'-bis-[(4-methylene-1,3-dioxolane-2-yl)methylene oxy]ethylether,
- 1,4-bis-[(4-chloromethyl-1,3-dioxolane-2-yl)ethenyl]benzene,
- 1,3-bis-[(4-chloromethyl-1,3-dioxolane-2-yl)methylene oxy]benzene,

1,5-bis-[(4-chloromethyl-1,3-dioxolane-2-yl)methylene oxy]naphthalene,
2,2-bis-[4-(4-chloromethyl-1,3-dioxolane-2-yl)methylene oxyphenyl]propane,
bis-[4-(4-chloromethyl-1,3-dioxolane-2-yl)methylene oxyphenyl]methane,
4,4'-bis-[(4-chloromethyl-1,3-dioxolane-2-yl)methylene oxy]biphenyl,
2,6-bis-[(4-chloromethyl-1,3-dioxolane-2-yl)methylene oxy]anthraquinone, and
1,3,5-tris-[(4-chloromethyl-1,3-dioxolane-2-yl)methylene oxy]benzene.

## Claim 5 (Canceled)

Claim 6 (Currently amended): The process according to claim 5, A process for the production of a 4-methylene-1,3-dioxolane compound of the general formula (I):

$$\begin{array}{c|c}
X & CH_2 & CH_2 \\
\hline
 & R1 & CH_2
\end{array}$$
(I)

wherein R1 denotes hydrogen,  $C_5$ - $C_6$ -cycloalkyl or  $C_1$ - $C_4$ -alkyl; m and n, which may be the same or different, denote 0 or 1, wherein  $m \le n$ , o denotes 2, 3 or 4 depending on the valency of the group X; and X denotes a C-C single bond, straight-chain or branched  $C_1$ - $C_{18}$ -alkylene,  $C_5$ - $C_6$ -

cycloalkylene, C<sub>8</sub>-C<sub>18</sub>-arylalkylene, -CH<sub>2</sub>(OCH<sub>2</sub>CH<sub>2</sub>)<sub>p</sub>OCH<sub>2</sub>-, -CH<sub>2</sub>(OCH(CH<sub>3</sub>)CH<sub>2</sub>)<sub>p</sub>OCH<sub>2</sub>-, wherein p is an integer from 0 to 100, or a group selected from

(ii) 
$$(R2)^{\frac{1}{q}} \left(\xi - \int_{0}^{\infty} d\xi dx \right)$$

(iii) 
$$(R2)_{r}$$
  $(R2)_{r}$   $(\xi)_{o}$ 

(iv) 
$$\left(\xi\right)^{-1}$$

(v) 
$$\left(\frac{\xi}{\xi}\right)_0$$

wherein  $q \le (6-0)$ ,  $r \le (8-0)$ , R2 denotes H or a  $C_1$ - $C_4$ -alkyl group and A denotes a single bond or denotes - $C(CH_3)_2$ -, - $C(CF_3)_2$ -, - $CH_2$ -, - $SO_2$ - or -C(C=0)-, and wherein the 2-position of the 1,3-dioxolane ring is not linked directly to an aromatic group,

the process comprising the steps of:

treating a 4-chloromethyl-1,3-dioxolane compound of the general formula (II):

$$\begin{array}{c|c}
X & O \\
\hline
 & CH_2CI \\
\hline
 & R1
\end{array}$$
(II)

wherein R1, m, n, o and X have the same meaning, respectively, as those defined for general formula (I) above,

with a base at a temperature from 0°C to 150°C to obtain a reaction product; and isolating the reaction product in accordance with a *per se* known process wherein the process it is implemented at a temperature from 15°C to 60°C.

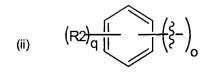
Claim 7 (Currently Amended): The process according to claim [[5]] 6, wherein the treatment is implemented in the presence of a solvent.

Claim 8 (Original): The process according to claim 7, wherein the solvent is a good solvent for the base.

Claim 9 (Currently amended): The process according to one of claims 5 to 8 A process for the production of a 4-methylene-1,3-dioxolane compound of the general formula (I):

$$\begin{array}{c|c}
X & CH_2 & CH_2 \\
\hline
R1 & O & CH_2
\end{array}$$
(I)

wherein R1 denotes hydrogen,  $C_5$ - $C_6$ -cycloalkyl or  $C_1$ - $C_4$ -alkyl; m and n, which may be the same or different, denote 0 or 1, wherein m  $\leq$  n, o denotes 2, 3 or 4 depending on the valency of the group X; and X denotes a C-C single bond, straight-chain or branched  $C_1$ - $C_{18}$ -alkylene,  $C_5$ - $C_6$ -cycloalkylene,  $C_8$ - $C_{18}$ -arylalkylene, -CH<sub>2</sub>(OCH<sub>2</sub>CH<sub>2</sub>)<sub>p</sub>OCH<sub>2</sub>-, -CH<sub>2</sub>(OCH(CH<sub>3</sub>)CH<sub>2</sub>)<sub>p</sub>OCH<sub>2</sub>-, wherein p is an integer from 0 to 100, or a group selected from



(iii) 
$$(R2)_{r}$$
  $(R2)_{r}$   $(\xi - )_{o}$ 

wherein  $q \le (6-o)$ ,  $r \le (8-o)$ , R2 denotes H or a  $C_1$ - $C_4$ -alkyl group and A denotes a single bond or denotes  $-C(CH_3)_2$ -,  $-C(CF_3)_2$ -,  $-CH_2$ -,  $-SO_2$ - or -(C=O)-, and wherein the 2-position of the 1,3-dioxolane ring is not linked directly to an aromatic group,

the process comprising the steps of:

treating a 4-chloromethyl-1,3-dioxolane compound of the general formula (II):

$$\begin{array}{c|c}
X & CH_2 & CH_2 CI \\
\hline
R_1 & CH_2 CI
\end{array}$$
(II)

wherein R1, m, n, o and X have the same meaning, respectively, as those defined for general formula (I) above,

with a base at a temperature from 0°C to 150°C to obtain a reaction product; and isolating the reaction product in accordance with a per se known process, wherein the base is potassium-tert.-butylate.

Claim 10 (Withdrawn): A process for the production of a 4-chloromethyl-1,3-dioxolane compound as recited in claim 3, comprising the steps of:

reacting a compound of the general formula (III):

$$\begin{array}{c|c} X & \begin{array}{c|c} & & \\ \hline & & \\ \end{array} & \begin{array}{c|c} & \\ & \end{array} & \begin{array}{c|c} & \\ \end{array} & \begin{array}{c|c} & \\$$

wherein R1, m, n, o and X have the same meanings as those defined for general formula (II) in claim 3, respectively, with 3-chloro-1,2-propanediol; and removing the resulting reaction water by distillation.

Claim 11 (Withdrawn): The process according to claim 10, wherein it is carried out in the presence of a catalyst.

Claim 12 (Withdrawn): The process according to claim 10 or 11, wherein an entrainer is used.

Claim 13 (Withdrawn): A process for the production of a 4-chloromethyl-1,3-dioxolanes as recited in claim 3, comprising the steps of:

treating an acetal of the general formula (IV):

$$\begin{array}{c|c}
X & O & R3 \\
\hline
(O)_{m} (CH_{2})_{n} & O & R3 \\
\hline
R1 & O & R3
\end{array}$$
(IV)

wherein R1, m, n, o and X have the same meanings as those defined for general formula (II) in claim 3, respectively, and R3 denotes a methyl or ethyl group, with 3-chloro-1,2-propanediol in the presence of an acidic catalyst at a temperature from 25°C to 150°C; and

removing the resulting alcohol by distillation.

Claim 14 (Withdrawn): A composition capable of emission-free, photocationic cross-linking comprising at least one 4-methylene-1,3-dioxolane compound according to claim 1 and at least one photo-initiator.

Claim 15 (Withdrawn): The composition according to claim 14, wherein the photoinitiator comprises a triaryl sulfonium salt or a diaryl iodonium salt.

Claim 16 (Withdrawn): A transparent film obtained from a composition according to claim 14 or 15.

Claim 17 (New): A 4-methylene-1,3-dioxolane compound of the general formula (I):

$$X = \left(O\right)_{m} \left(CH_{2}\right)_{n} CH_{2} CH_{2}$$

$$O = CH_{2}$$

wherein R1 denotes hydrogen,  $C_5$ - $C_6$ -cycloalkyl or  $C_1$ - $C_4$ -alkyl; m and n, which may be the same or different, denote 0 or 1, wherein m  $\leq$  n, o denotes 2, 3 or 4 depending on the valency of the group X; and X denotes a C-C single bond, straight-chain or branched  $C_1$ - $C_{18}$ -alkylene,  $C_5$ - $C_6$ -cycloalkylene,  $C_8$ - $C_{18}$ -arylalkylene, -CH<sub>2</sub>(OCH<sub>2</sub>CH<sub>2</sub>)<sub>p</sub>OCH<sub>2</sub>-, -CH<sub>2</sub>(OCH(CH<sub>3</sub>)CH<sub>2</sub>)<sub>p</sub>OCH<sub>2</sub>-, wherein p is an integer from 0 to 100, or a group selected from

(ii) 
$$(R2)^{\frac{1}{q}} \frac{1}{[1]} (\xi -)_{0}$$

(iii) 
$$(R2)_{\Gamma}$$
  $(\xi)_{O}$ 

(iv) 
$$(\xi - )$$

wherein  $q \le (6-o)$ ,  $r \le (8-o)$ , R2 denotes H or a  $C_1$ - $C_4$ -alkyl group and A denotes a single bond or denotes  $-C(CH_3)_2$ -,  $-C(CF_3)_2$ -,  $-CH_2$ -,  $-SO_2$ - or -(C=O)-, and wherein the 2-position of the 1,3-dioxolane ring is not linked directly to an aromatic group.